

SMITH CREEK

HABITAT REHABILITATION AND ENHANCEMENT PROJECT

FACT SHEET



Smith Creek flows into upper Brown's Lake shown here in the upper left corner of this photograph.

Pool 13

Upper Mississippi River Mile 545.0

Jackson County, Iowa
Rock Island District

RESOURCE PROBLEM:

Sediment and agricultural nutrients from the Smith Creek watershed are being deposited into Brown's Lake. Brown's Lake is a multi-million dollar EMP project that restored deep-water habitat to the Mississippi River backwater complex in the early 1990s. Smith Creek is a 3,050-acre watershed composed of approximately 50% cropland (corn/soybean rotations, alfalfa and conservation reserve fields) and 50% grazed forest and pasture land. Most of the cropland is on 5-14% slopes, with the forest and pastureland on 14-25% slopes. Sediment is produced from excessive sheet and rill erosion on cropland and numerous gullies on the remaining land. This ongoing siltation is increasing the delta at the mouth of Smith Creek will once again eliminate aquatic habitats that were dredged into Brown's Lake.

PROJECT GOALS AND OBJECTIVES

Protect and sustain aquatic habitat at Brown's Lake is the primary goal of this project. To achieve this goal, the objective is to reduce sediment deposition and agricultural chemicals into Brown's Lake. Existing deep-water habitat conditions created at Brown's Lake will be extended by decades by significantly slowing down the sedimentation rate.

Creation of wetland habitat in the Smith Creek watershed is another goal of this project. This goal can be achieved through the objective of creating a 10 – 50 acre wetland ecosystem at the lower end of Smith Creek to act as a final filter for the stream flow.

Creation of upland wildlife habitat is also a goal of this project. To achieve this goal, the objective is to establish upland sediment basins and filter strips.

POTENTIAL PROJECT FEATURES:

- 17 upland sediment basins
- 1500 acres under increased conservation practices by incorporating filter, buffer, & riparian strips in the upland areas
- 10 to 50 acre wetland complex at the lower end to act as a final filter before Smith Creek flows into Brown's Lake and the Mississippi River.

PROJECT OUTPUTS:

The project serves as a demonstration for controlling soil erosion at its source, rather than trying to handle the sediment after it creates the downstream problem. This project would primarily benefit Federal refuge land by increasing wetland habitat and decreasing the amount of sediment delivered to the Brown's Lake backwater complex by Smith Creek. Preliminary analyses indicate a 90 percent reduction would be realized. In addition, soil resources would be protected and upland wildlife habitat improved.

FINANCIAL DATA:

Preliminary estimates indicate \$250,000 is need for general design combined with a total construction cost of \$600,000. The NRCS will be contracted with to design upland features on the project based on a Memorandum of Agreement. Upland project features built on private land will be cost shared at 65% Federal and 35% nonfederal. Jackson County Soil and Water Conservation District is the nonfederal sponsor for this project and will be obtaining their cost share portion from the Iowa Department of Agriculture and Land Stewardship, private landowners, and potentially from the Iowa DNR. Operational and maintenance cost will include private landowners, potentially the Iowa DNR, and potentially the USFWS.

STATUS:

Initial coordination and analysis is underway to produce a Feasibility Report by spring of 2002. Brown's Lake post-construction monitoring data has provided significant baseline information for Smith Creek.

POINTS OF CONTACT:

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PROJECT PARTNERS:



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